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In the Claims:

1. A method of adapting a routing algorithm used by a call server connected to a communications network comprising the steps of:
 - 5 detecting a change in at least one condition of the communications network;
 - analyzing the change to determine whether the routing algorithm requires adaptation to accommodate said change;
 - and, in the case of the routing algorithm requiring adaptation,
 - providing an indication of the required adaptation to the call server; and
- 10 receiving the indication at the call server and adapting the routing algorithm used by the call server in response to said indication.

2. A method as claimed in claim 1, wherein in the step of providing an indication of the required adaptation, the indication provides an indication of at least one rule governing the routing algorithm which is to be adapted.

- 15 3. A method as claimed in claim 1, wherein in the step of analyzing the change in condition, the change in the level of congestion over the network is analyzed.

- 20 4. A method as claimed in claim 1, wherein in the step of analyzing the change in condition, the change in the topology of the network is analyzed.

- 25 5. A method as claimed in claim 1, wherein in the step of analyzing the change in condition, the change in the available bandwidth over at least a portion of the network is analyzed.

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6. A method as claimed in claim 1, wherein the step of analyzing said change is performed and the step of providing the indication occur dynamically.

7. A method as claimed in claim 1, wherein the step of analyzing said change includes assessing the impact of the change in the at least one condition on a future condition of the network.

8. A method as claimed in claim 1, wherein at least one condition occurs on the packet backbone of the communications network.

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9. A method as claimed in claim 1, wherein the method enables the call server to use available network resource more efficiently.

10. A method as claimed in claim 1, wherein in the step of detecting a change in the condition of the communications network, the type of traffic affected is determined, wherein the type of data is determined by the bandwidth of the data.

11. A method of modifying at least one characteristic of a call server in a communications network which includes a network management element capable of monitoring a condition of the network, the method comprising:

generating an indication of the condition of the network providing sufficient information for the call server to utilise available network resources;

sending the indication to the call server;

receiving at the call server the indication of the condition of the network; and

25 modifying said at least one characteristic in accordance with said indication to enable the call server to utilise the available network resources.

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12. A method as claimed in claim 11, wherein the method further comprises the initial step of the call server requesting information from the network management element.

13. A method as claimed in claim 11, wherein said network is a packet backbone network and said at least one characteristic of the call server includes a routing algorithm, and wherein in the step of generating the indication, at least one informational element is provided which indicates at least one rule to be adapted according to the condition of the network, said rule being used in said routing algorithm to determine which gateways the call server shall to use to connect a plurality of trunk groups over the packet backbone network.

14. A network management element capable of determining a condition of a communications network and capable of communicating said condition with a call server connected to the network for use in a method of adapting a routing algorithm used by a call server connected to a communications network, the method comprising the steps of detecting a change in at least one condition of the communications network; analyzing the change to determine whether the routing algorithm requires adaptation to accommodate said change; and, in the case of the routing algorithm requiring adaptation, providing an indication of the required adaptation to the call server; and receiving the indication at the call server and adapting the routing algorithm used by the call server in response to said indication, the network management element being adapted to correlate information received from a packet backbone network relating to the condition of the network with an instruction set comprising at least one informational element, each informational element providing an instruction to a call server to modify at least one of the characteristics of the call server so as to optimise the manner in which the call server utilises the available resources of the packet backbone network.

15. A call server adapted for use in a method of adapting a routing algorithm used by the call server connected to a communications network, the method comprising the steps of: detecting a change in at least one condition of the communications network; analyzing the change to determine whether the routing algorithm requires adaptation to

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accommodate said change; and, in the case of the routing algorithm requiring adaptation, providing an indication of the required adaptation to the call server; and receiving the indication at the call server and adapting the routing algorithm used by the call server in response to said indication, wherein the call server includes:

- 5 a receiving element for interfacing with said indication;
- an processing element for processing information provided by said indication;
- and
- a routing algorithm adapting element for adapting said routing algorithm.

10 16 A routing algorithm for a call server adapted for use in a method of adapting a routing algorithm used by a call server connected to a communications network, the method comprising the steps of: detecting a change in at least one condition of the communications network; analyzing the change to determine whether the routing algorithm requires adaptation to accommodate said change; and, in the case of the 15 routing algorithm requiring adaptation, providing an indication of the required adaptation to the call server; and receiving the indication at the call server and adapting the routing algorithm used by the call server in response to said indication, the routing algorithm operable in accordance with a set of rules which determine route selection over a communication network, at least one rule capable of being adapted in response to the 20 call server receiving an indication relating to the adaptation of the said at least one rule.

17. A routing algorithm as claimed in claim 16, wherein the rules may be adapted differently for different types of data.

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18. A communication network having means to modify a characteristic of a call server for use in a method of adapting a routing algorithm used by a call server connected to a communications network, the method comprising the steps of: detecting a change in at least one condition of the communications network; analyzing the change 30 to determine whether the routing algorithm requires adaptation to accommodate said

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change; and, in the case of the routing algorithm requiring adaptation, providing an indication of the required adaptation to the call server; and receiving the indication at the call server and adapting the routing algorithm used by the call server in response to said indication.

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